

GOLOWELL MULTIMODAL PLAN

Chelmsford St Bicycle Corridor Improvements

12/07/2020

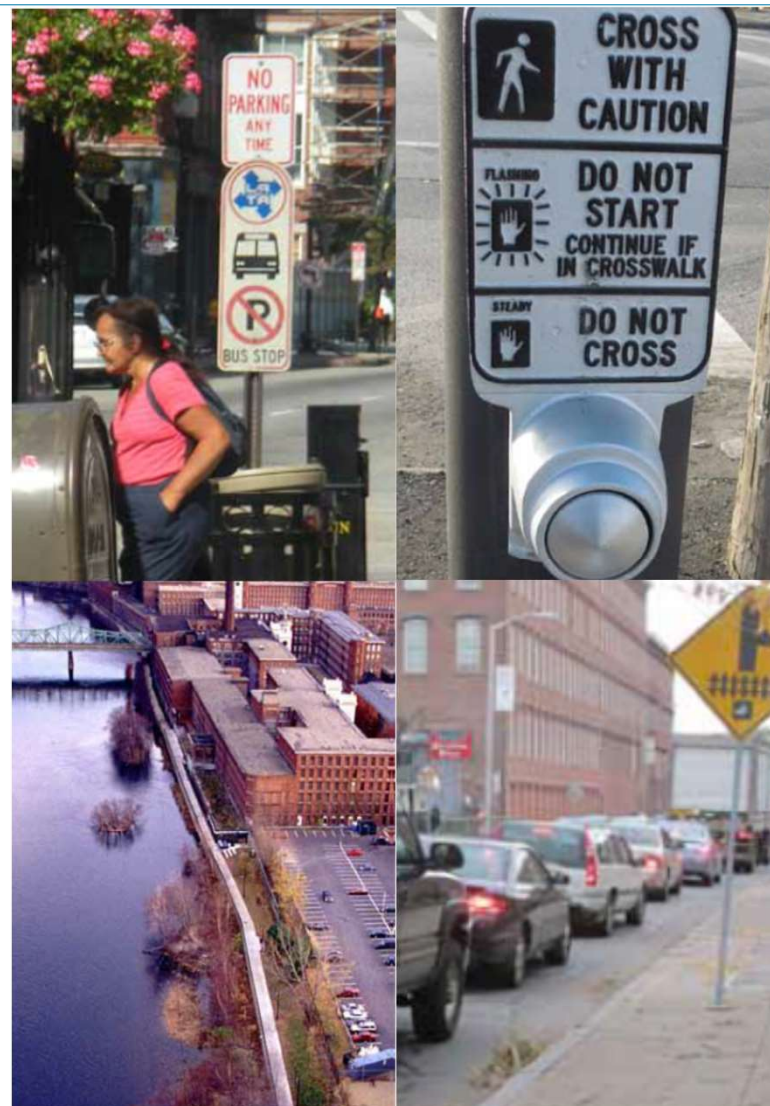


Introductions

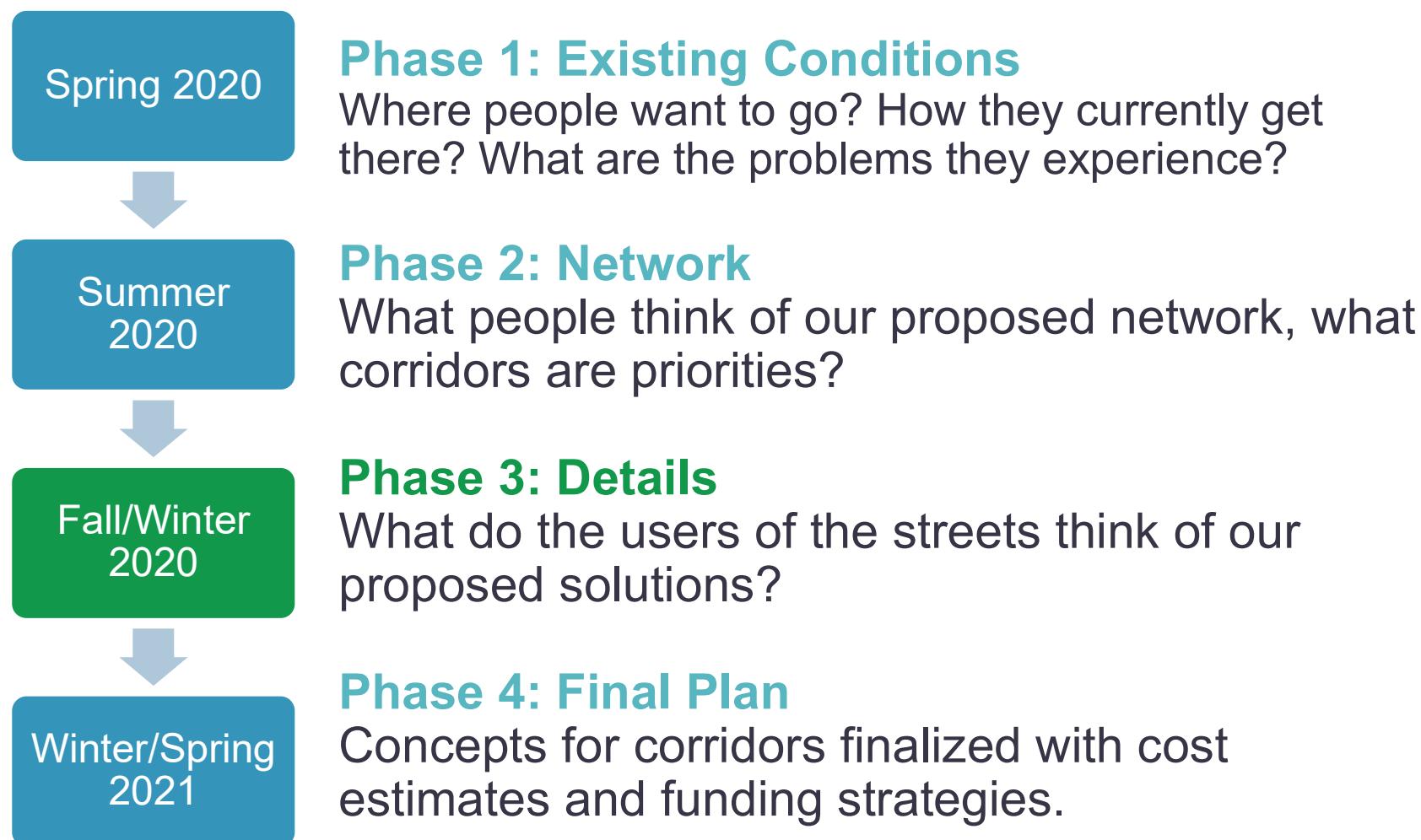
- Chris Hayes, Neighborhood Planner, City of Lowell
- Kristin Saunders, Senior Planner, Toole Design
- Sneha Adhikari, Engineer, Toole Design

What is GoLowell?

- **Citywide** plan focusing on busses, bikes, walking, rolling, and more
- **10 year** plan
- **Downtown transit pilot** already funded
- Plan will include **funding strategies for other improvements**



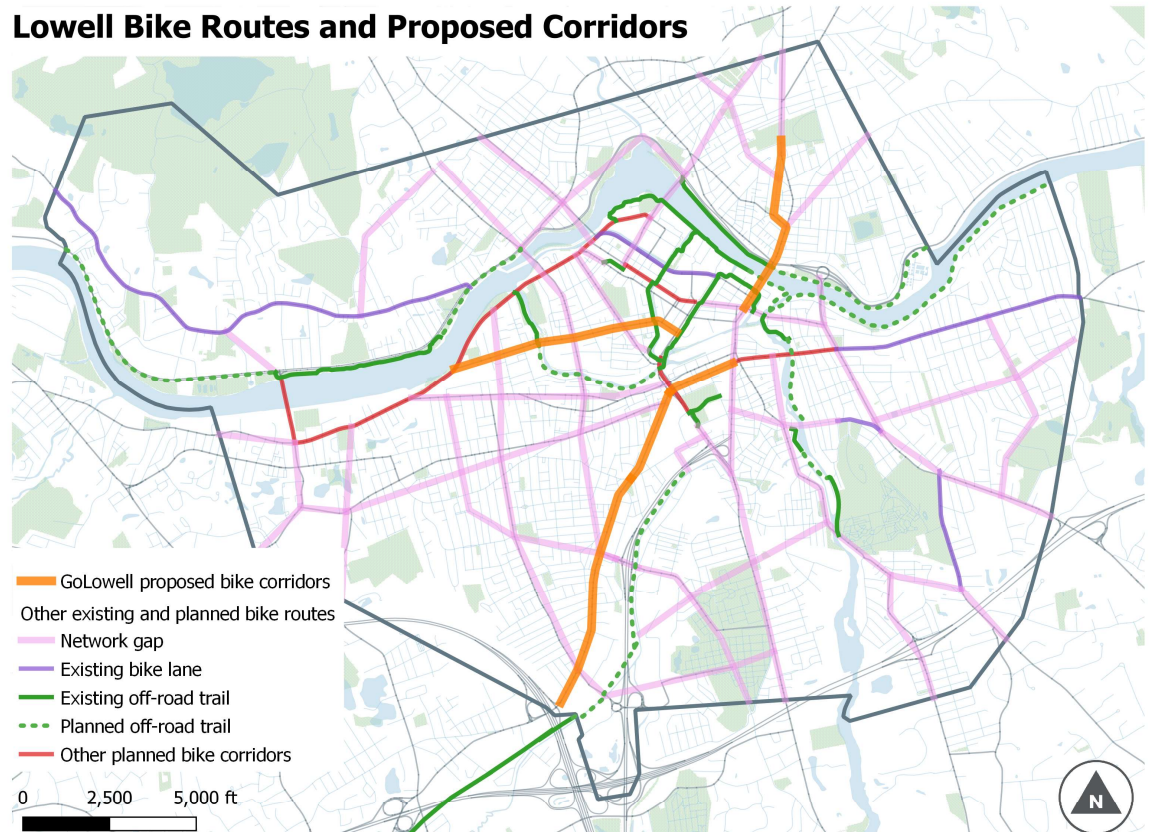
What We've Done So Far



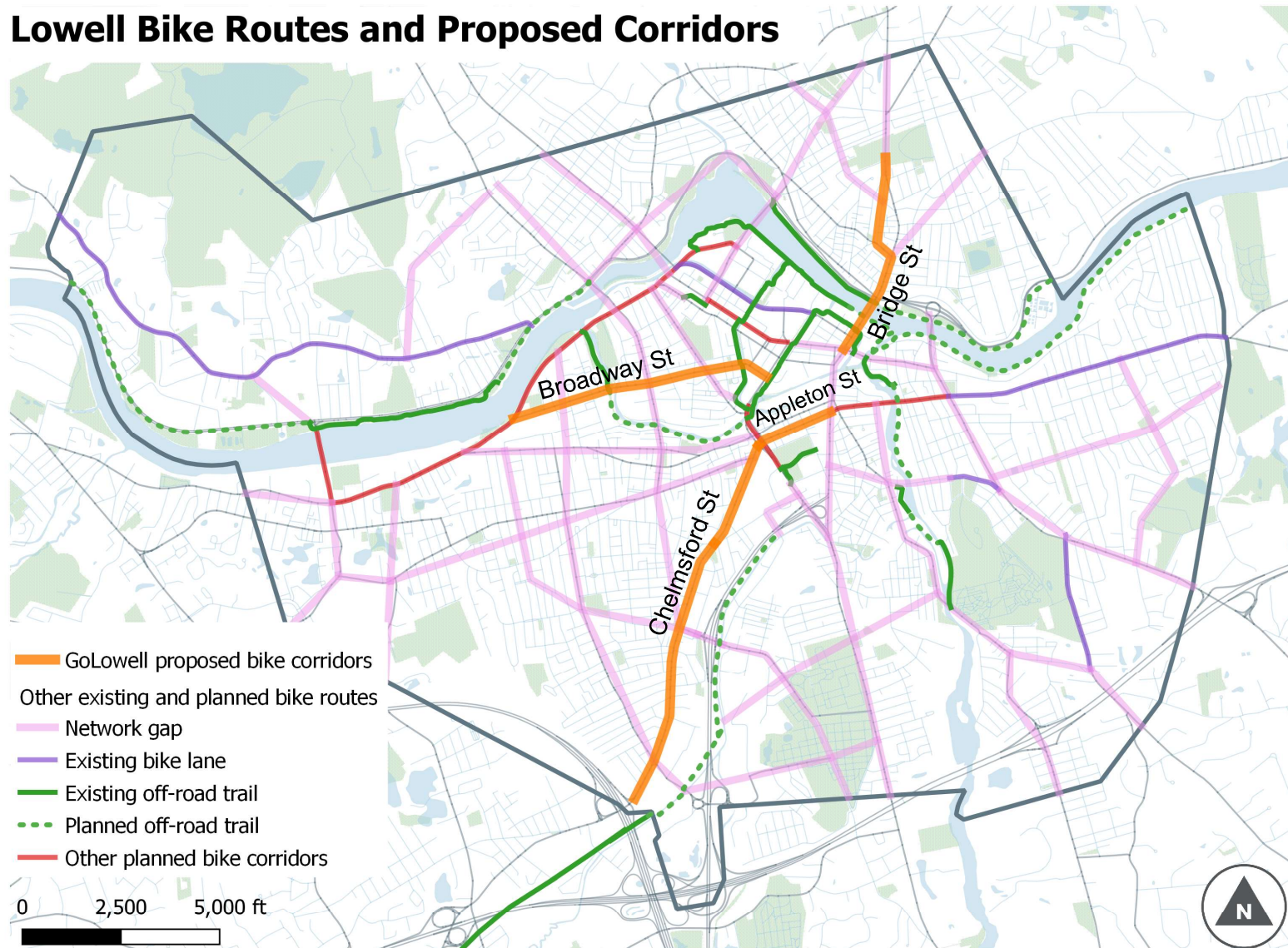
Phase 2 Results: Our Network

- Based on public feedback and equity analysis
- Focus corridor concepts designed now
- Other links will be designed in the future
- Full design and construction depends on funding
- Network may still be tweaked before 2021

Lowell Bike Routes and Proposed Corridors



Lowell Bike Routes and Proposed Corridors



Phase 3: Goals of This Meeting

- Share why Chelmsford Street was chosen as a **Focus Corridor**
- Neighborhood input on Chelmsford Street options
- Intimate talk about **trade-offs and constraints**
- Think about how to **balance** the real need for vehicle parking and the need to provide new opportunities for transportation



GoLowell will also Consider...

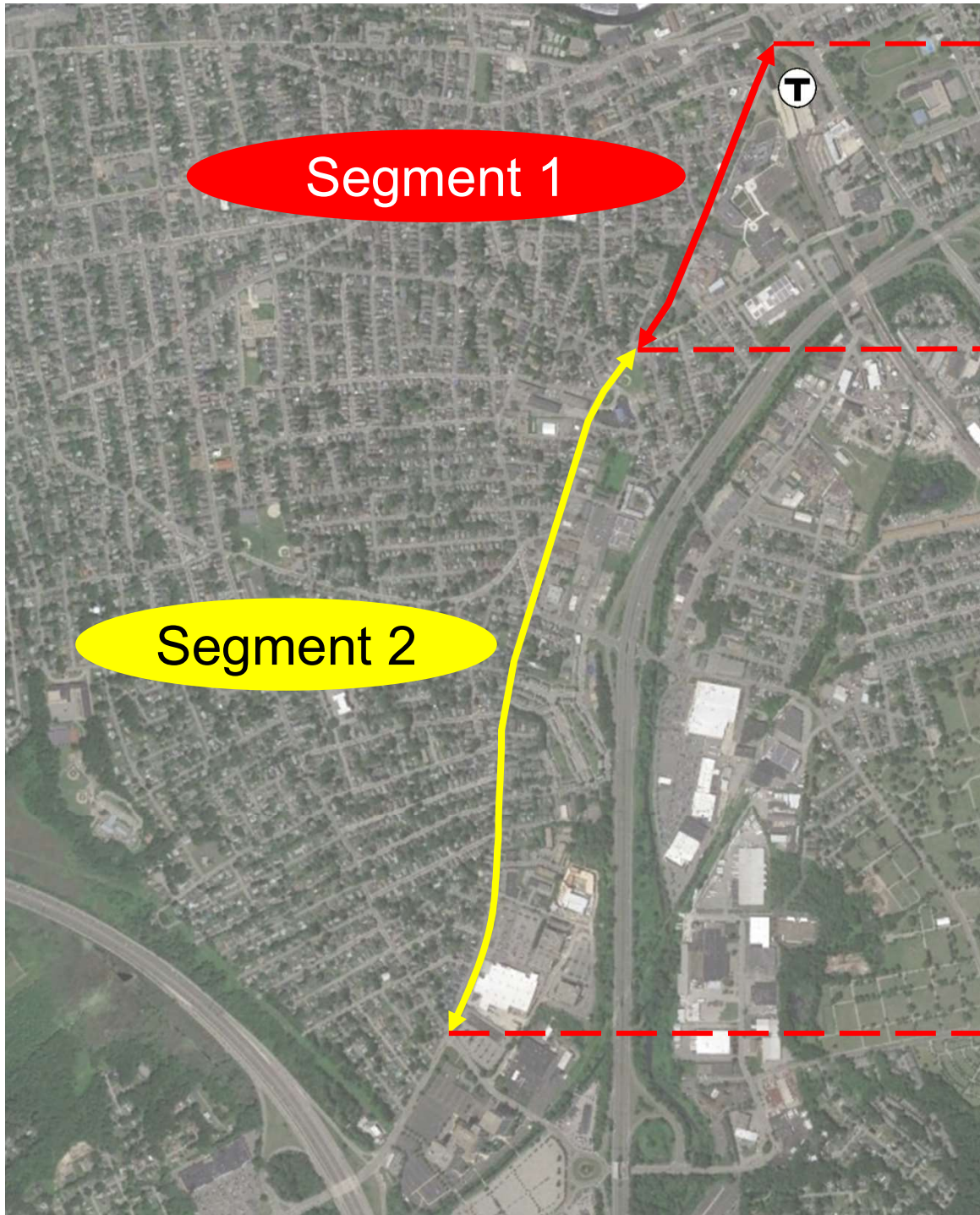
- **Maintenance** such as snow removal as a top safety concern
- Parts of the system that aren't necessarily part of the street, like **bicycle parking and LRTA website and app**
- **Education** and **enforcement**

Note: GoLowell recommendations will be a starting point for the above elements, which all may need additional planning, analysis, or coordination with multiple city departments or partners

Chelmsford Street

- Chelmsford Street Today
- Why Chelmsford Street
- Concepts for Chelmsford Street

Chelmsford Street Today



Segment 1

Segment 2

Westford St

Lincoln St

Industrial St/BFRT



Chelmsford St characteristics

- Primarily commercial
- Existing unprotected bike lane from Westford St to Lincoln St
- Narrow sidewalks on both sides
- Serves bus route 14, 15, 16
- Parking pockets on both sides
- Gallagher Terminal connection



Why Chelmsford Street

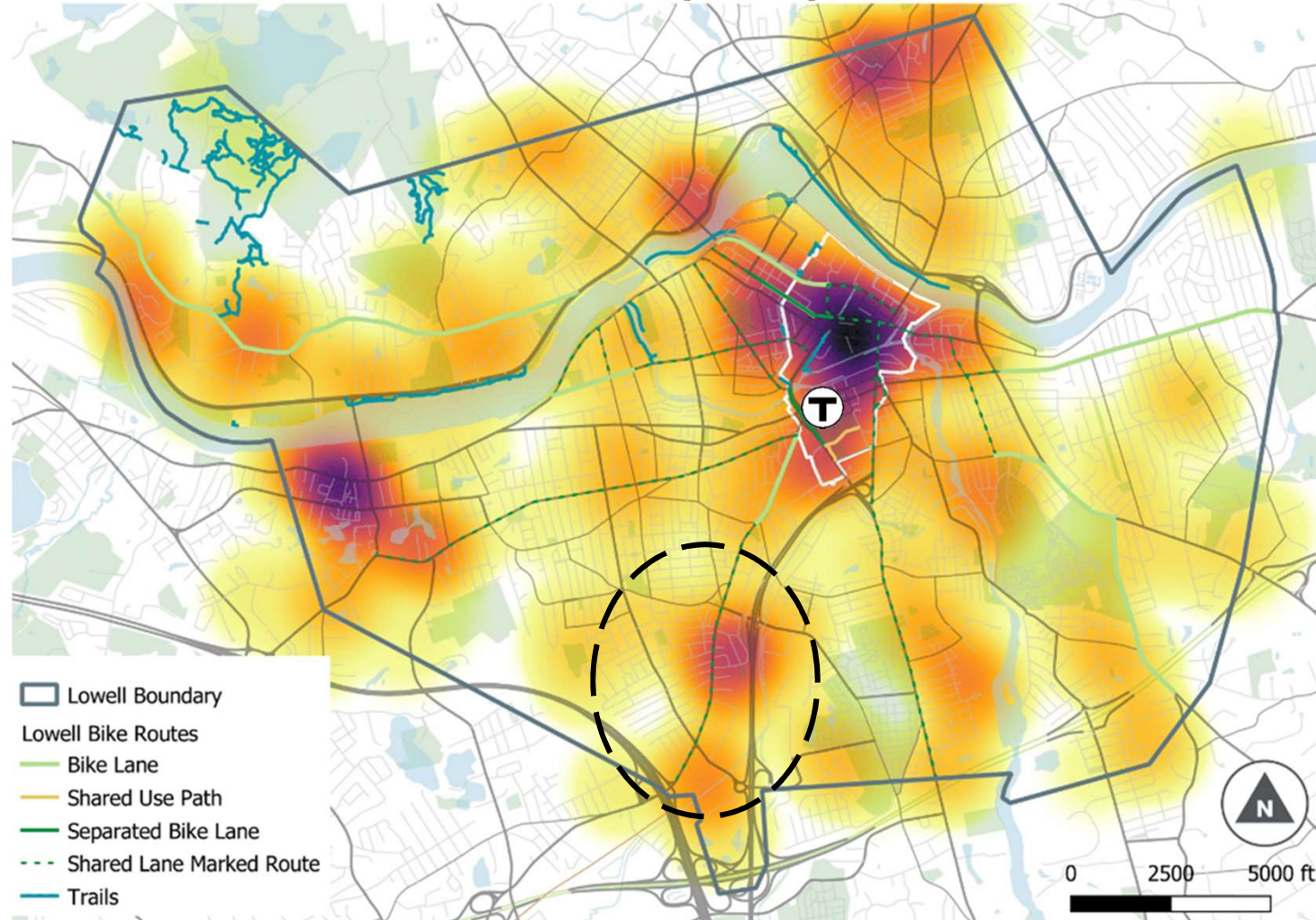
Public input process



- Two public meetings with survey feedback
- Chelmsford Street outlined as a possible corridor from survey origin and destination information
- Comments:
 - Connection from Bruce Freeman Rail Trail to downtown Lowell
 - Connection to retail options and commuter rail

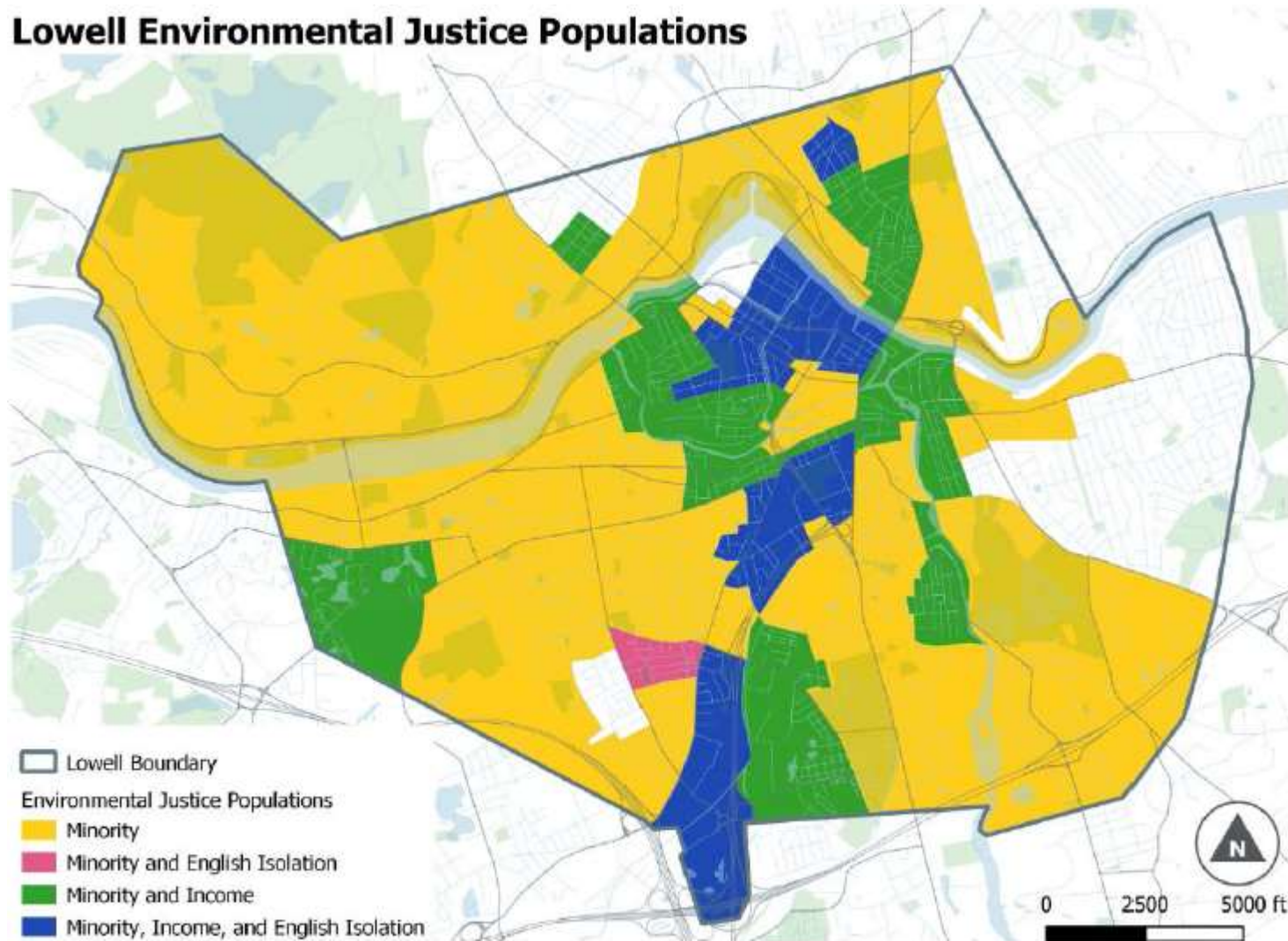
Origin & Destination considerations

Lowell Bike Routes & Relative Density of Key Destinations **DRAFT**

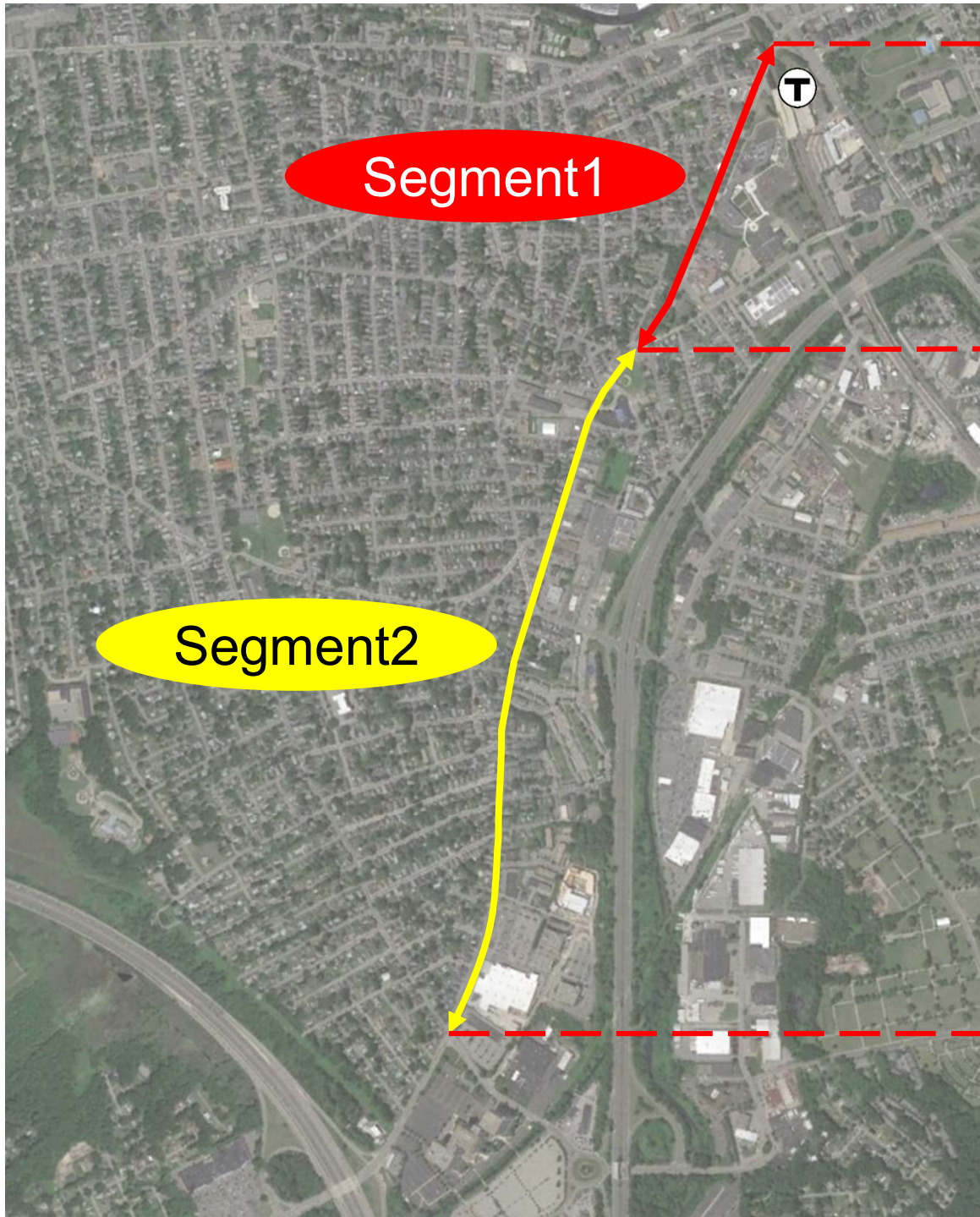


Equity considerations

Lowell Environmental Justice Populations



Concepts for Chelmsford Street



Segment1

Segment2

Westford St

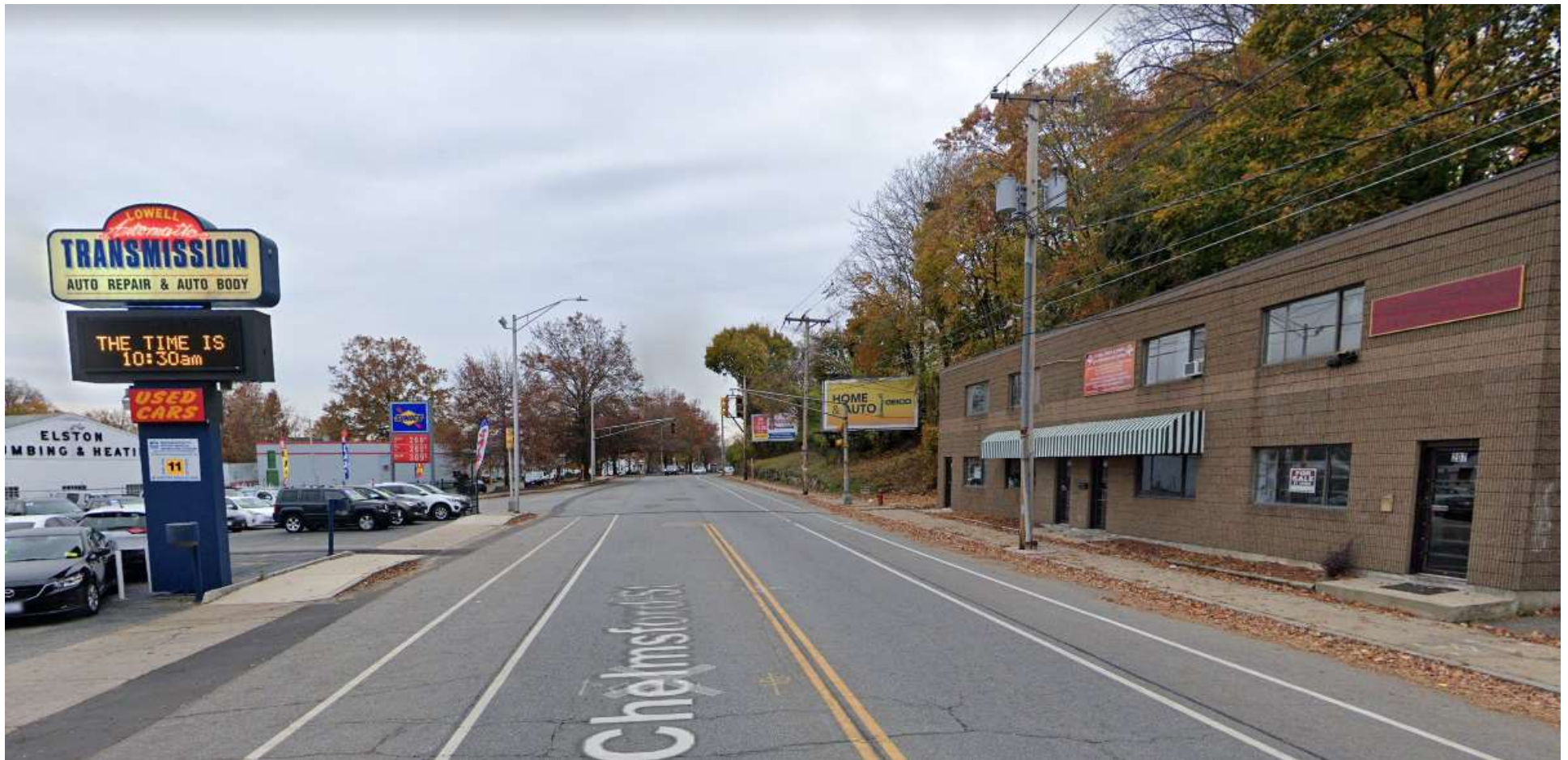
Lincoln St

Industrial St/BFRT



TOOLE
DESIGN

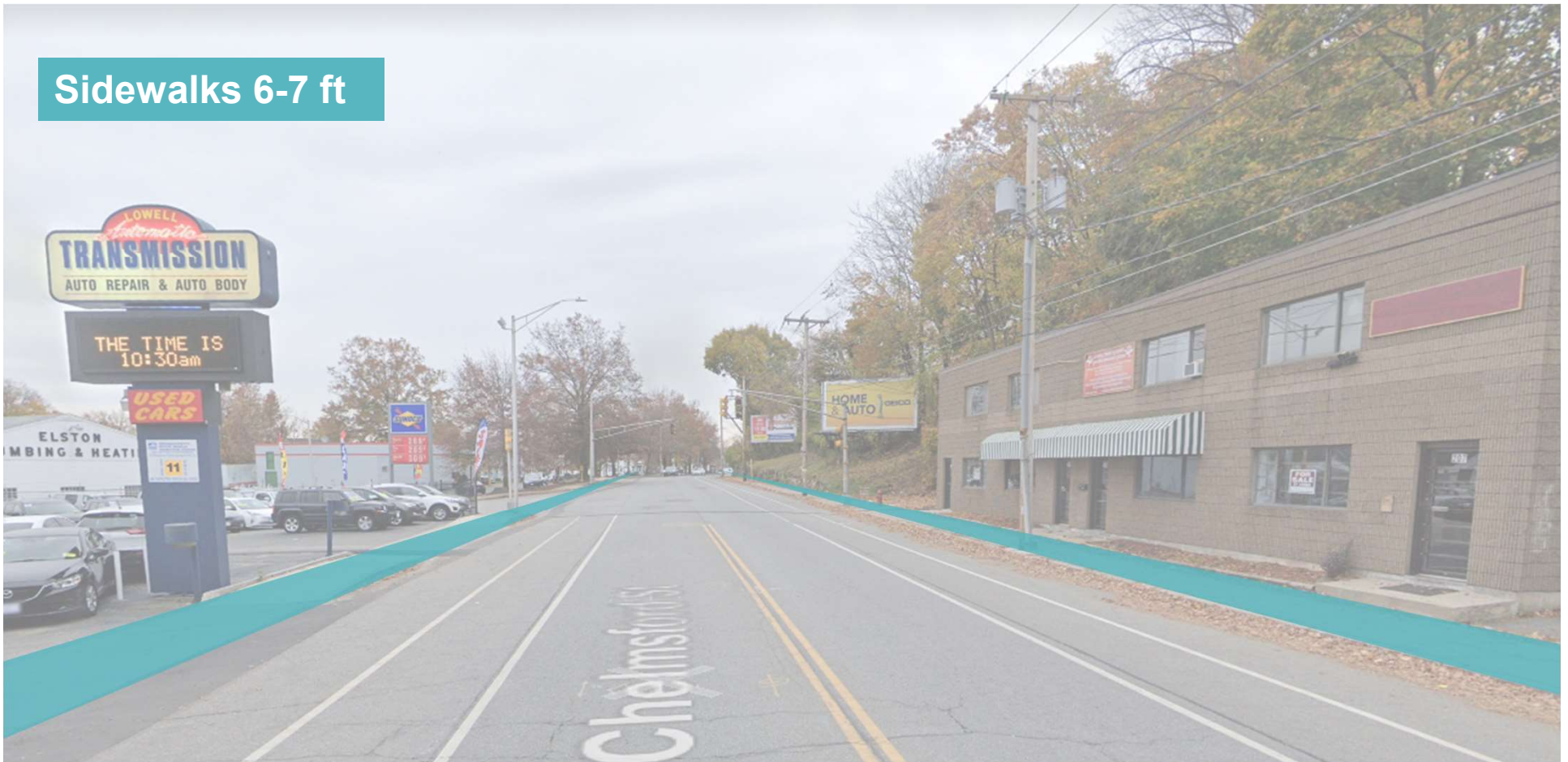
Chelmsford St Segment1 – Existing Space Allocation



Chelmsford St Segment1 – Existing Space Allocation



Sidewalks 6-7 ft



Chelmsford St Segment1 – Existing Space Allocation



Sidewalks: 6-7 ft

Parallel Parking: 8-9 ft



Chelmsford St Segment1 – Existing Space Allocation



Sidewalks: 6-7 ft

Parallel Parking: 8-9 ft

Bike Lane: ~5 ft



Chelmsford St Segment1 – Existing Space Allocation



Sidewalks: 6-7 ft

Parallel Parking: 8-9 ft

Bike Lane: ~5 ft

Driving Lanes: ~24 ft



Chelmsford St Segment1 – Existing Space Allocation

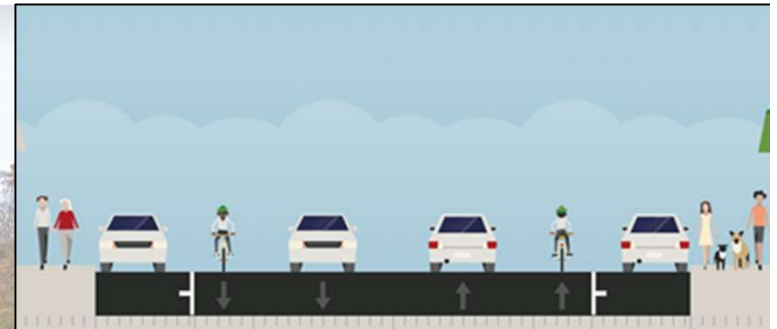


Sidewalks: 6-7 ft

Parallel Parking: 8-9 ft

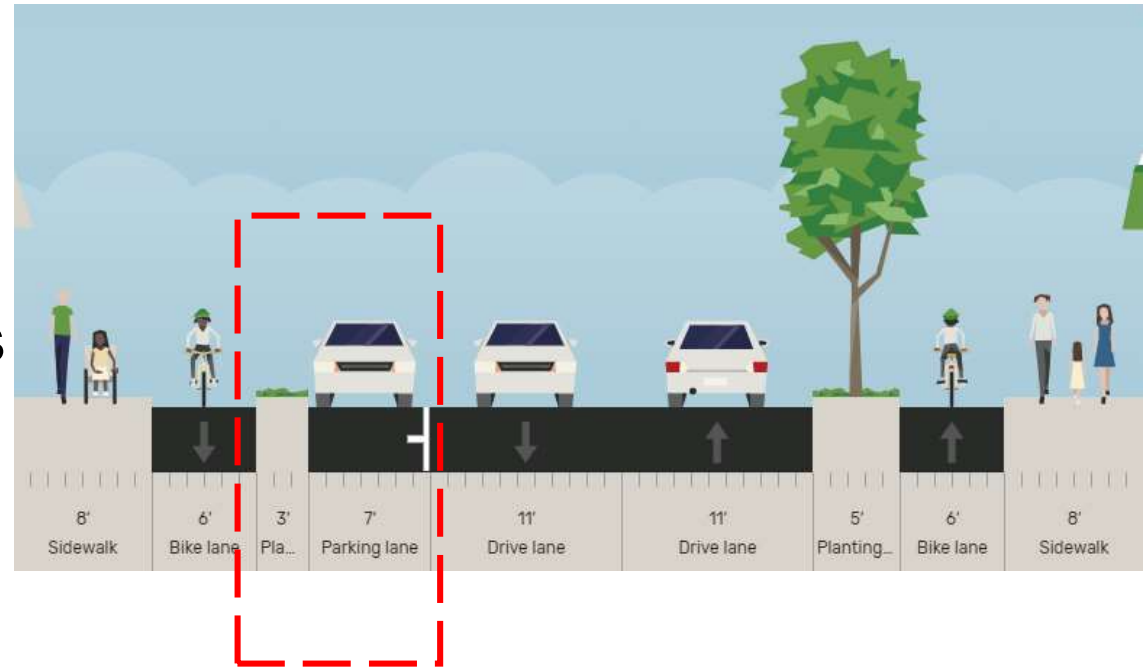
Bike Lane: ~5 ft

Driving Lanes: ~24 ft



Chelmsford St Segment1 – Concept 1

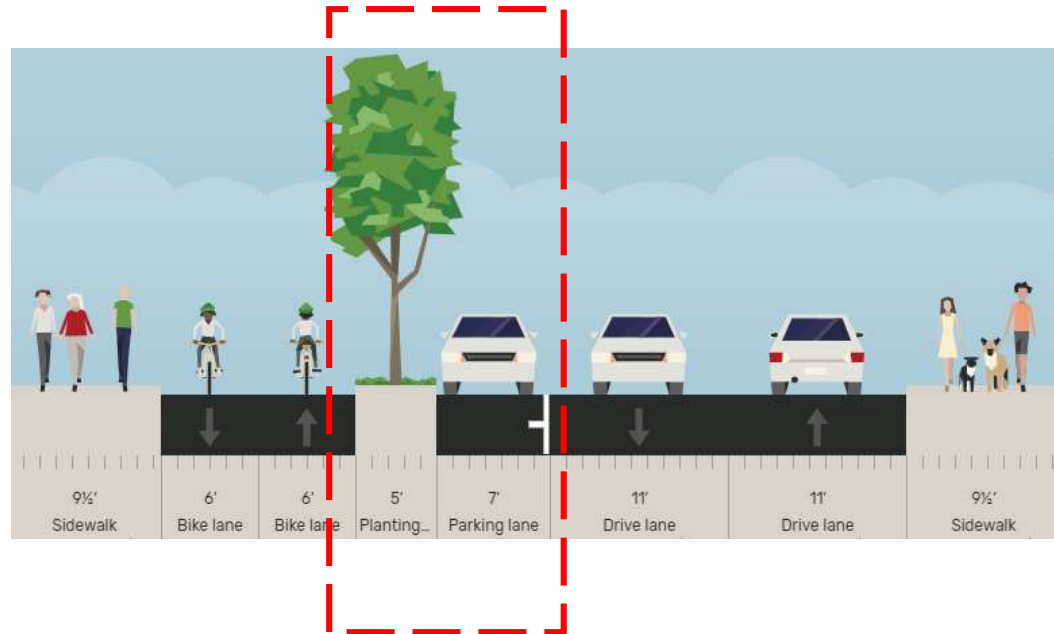
- Separated bike lane on both sides with buffer
- 8-foot-wide sidewalks
- 11-foot-wide driving lanes
- Remaining as “flexible zones” – parking, bus stops, trees, other – can be added on either side



*Flexible zones may be situated
on either side

Chelmsford St Segment 1 – Concept 2

- Separated two-directional bike lane Gallagher side
- Over 9-foot-wide sidewalks
- 11-foot-wide driving lanes
- Remaining as “flexible zones” -parking, bus stops, trees, other – can be added on either side



Flexible
zone*

*Flexible zones may be situated
on either side

Chelmsford St Segment 1 – “Flexible Zone” options

Parking protected bike lanes - Boston, MA



Chelmsford St Segment 1 – “Flexible Zone” options

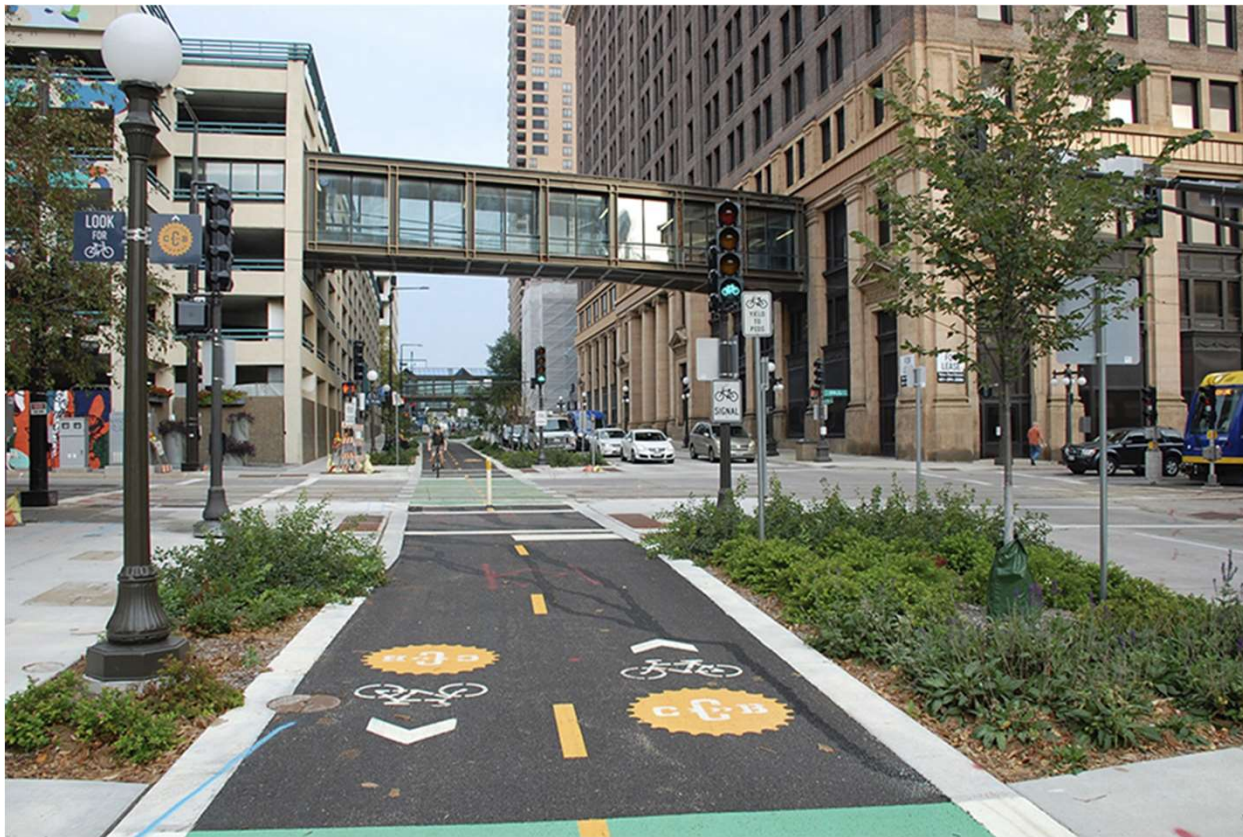


Bus stops - Cambridge, MA



Chelmsford St Segment 1 – “Flexible Zone” options

Green space/trees – Hennepin County, MN



Chelmsford St Segment 1 – Concept 1 chicanes



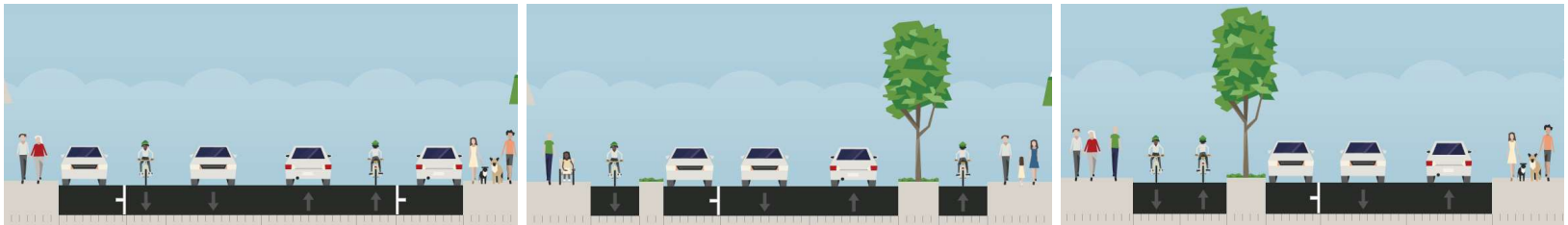
Chicane

- Curb extensions on alternate sides of roadway that will narrow roadway and require drivers to steer from one side to another.
- Alternating flexible zones for Concept 1 will create chicane effect

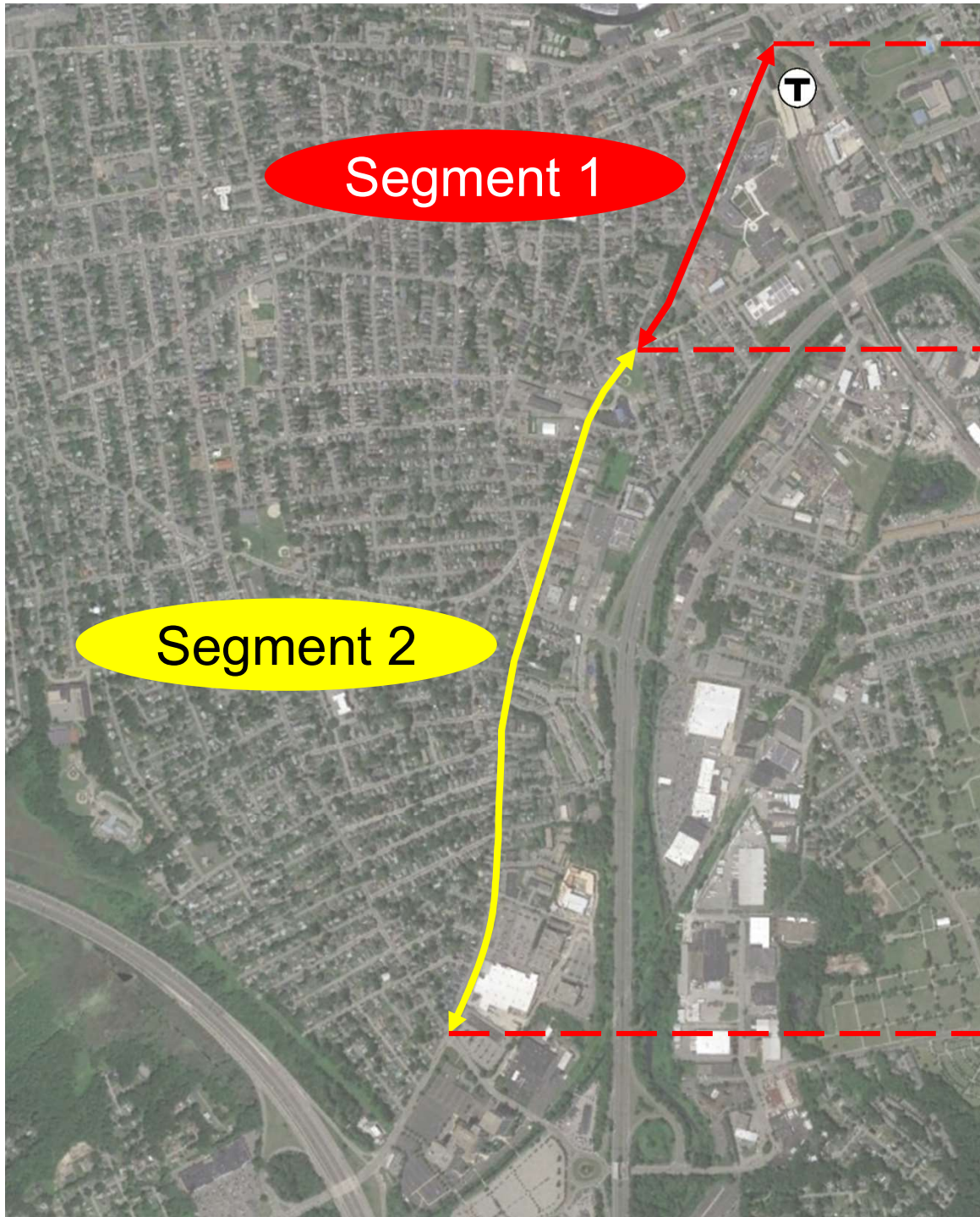
Cambridge, MA



Chelmsford St Segment 1 - Concepts comparison



	Existing	Concept 1	Concept 2
Bike Lanes	Conventional only – both sides	Separated – on both sides	Separated – one side only
Traffic Calming	None	Lane narrowing, possible chicanes	Lane narrowing
Sidewalk on each side	5-6 feet	8 feet	More than 9 feet
Flexible zones	None	Some space available on each side of the street	Space only for one side of the street



Segment 1

Segment 2

Westford St

Lincoln St

Industrial St/BFRT



Chelmsford St Segment 2 – Existing Space Allocation



Chelmsford St Segment 2 – Existing Space Allocation

Sidewalks: 5-6 ft



Chelmsford St Segment 2 – Existing Space Allocation



Sidewalks: 5-6 ft

Shoulder/Parking: 5-6 ft



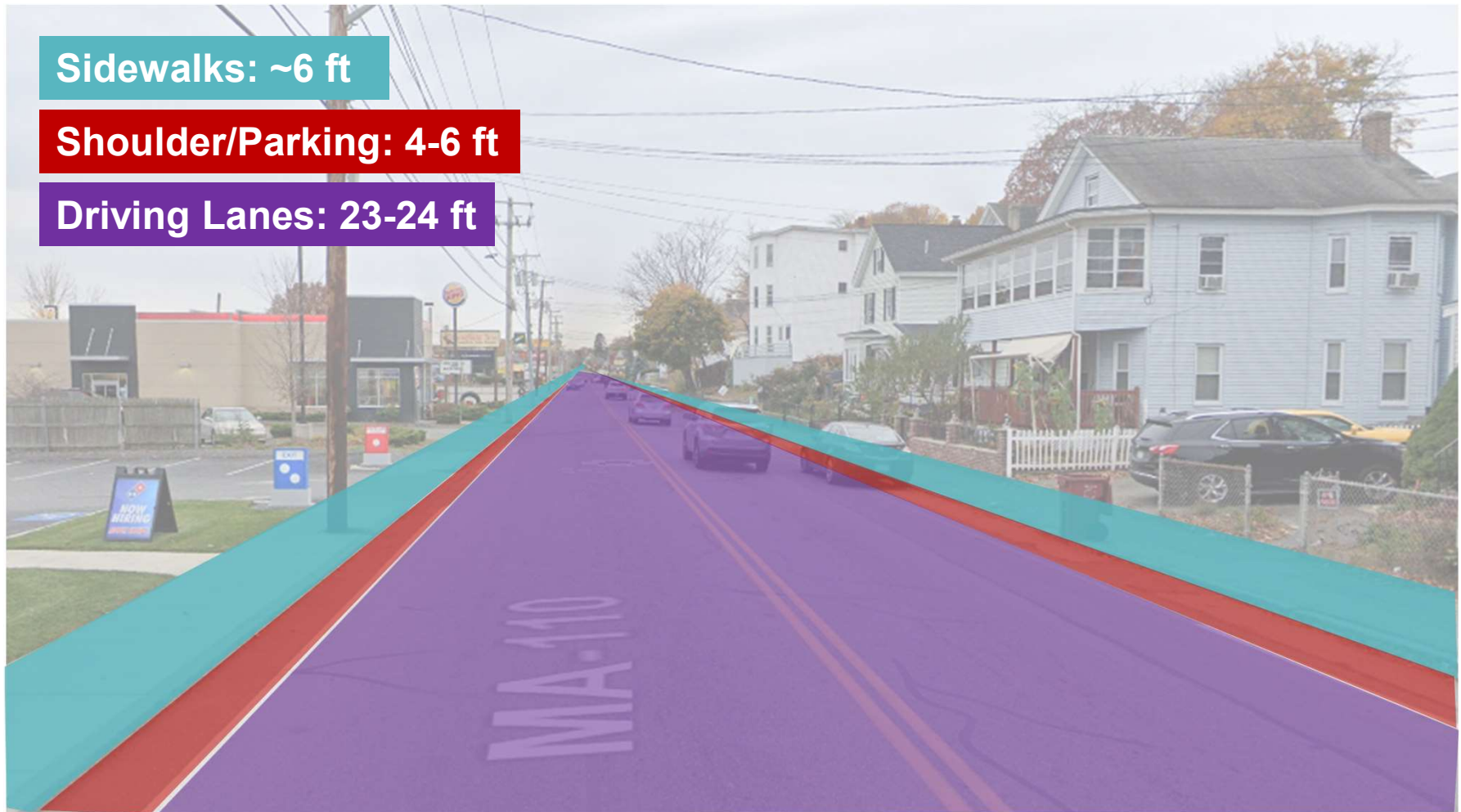
Chelmsford St Segment 2 – Existing Space Allocation



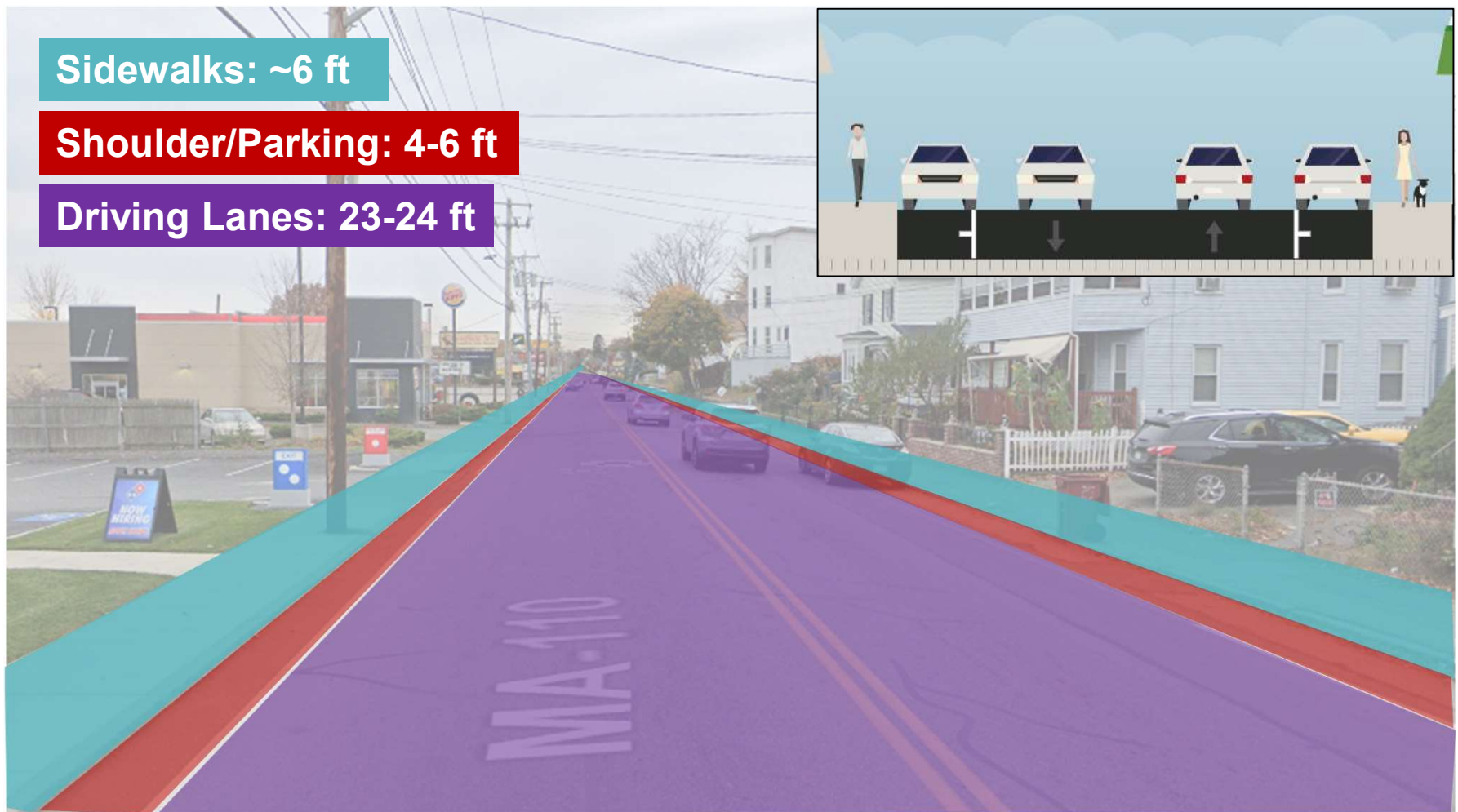
Sidewalks: ~6 ft

Shoulder/Parking: 4-6 ft

Driving Lanes: 23-24 ft



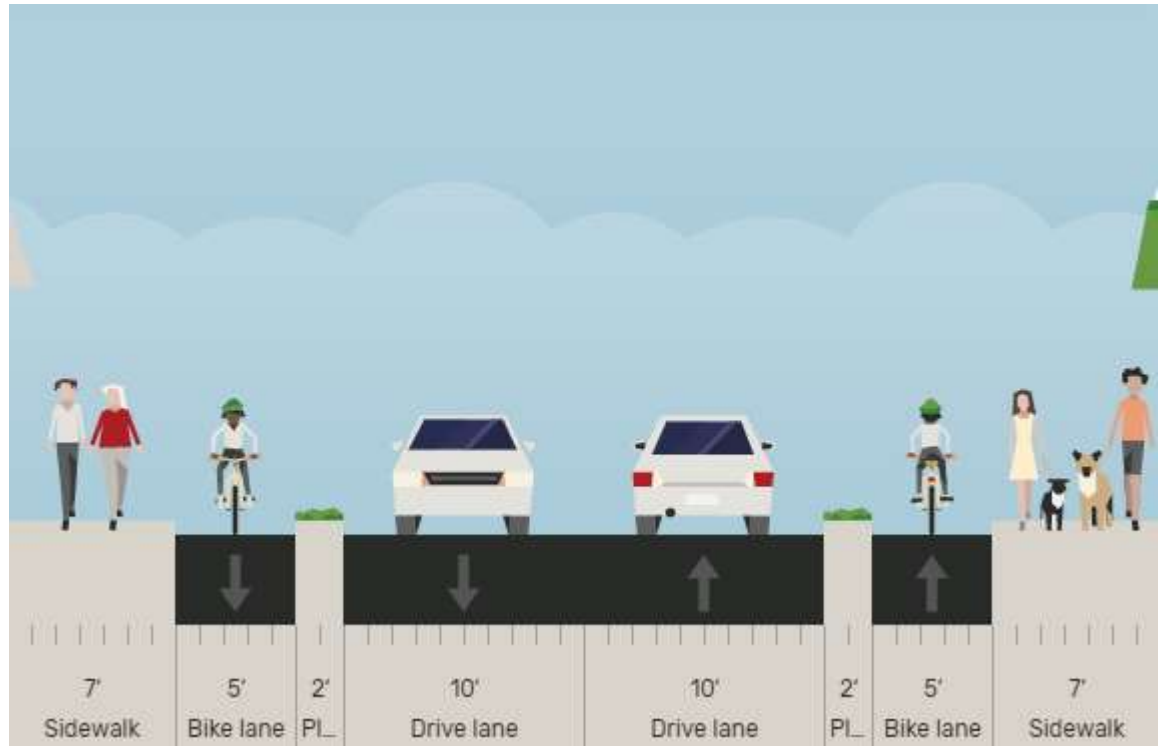
Chelmsford St Segment 2 – Existing Space Allocation



Chelmsford St Segment 2

Concept 1

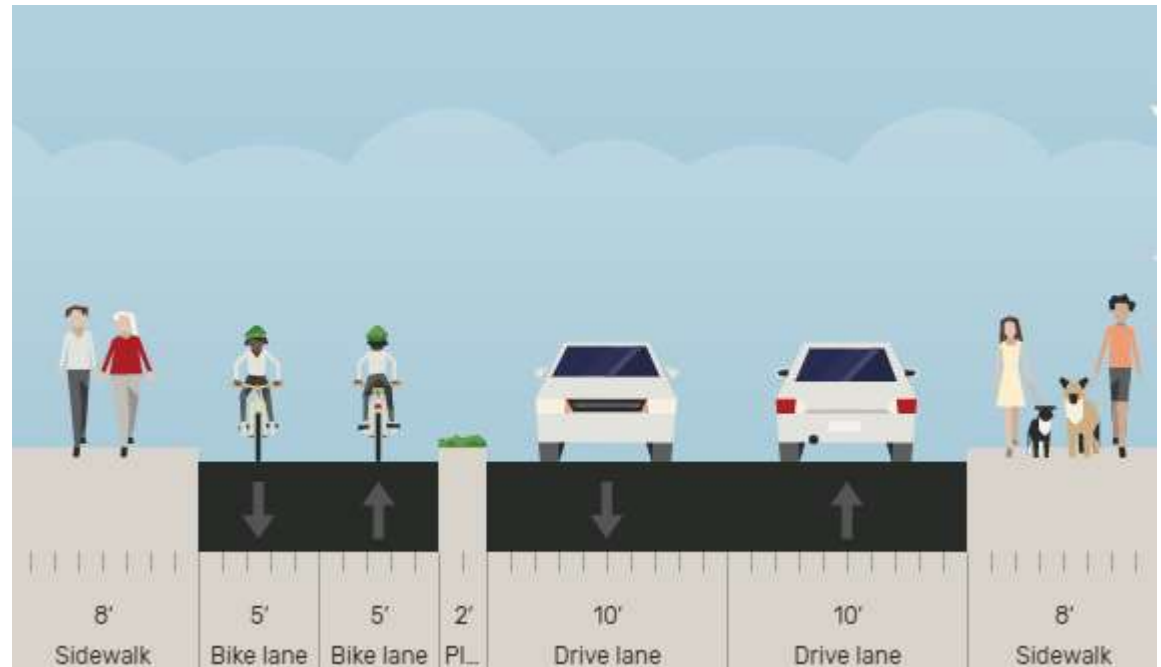
- Separated bike lane on both sides with buffer
- 7-foot-wide sidewalks
- 10-foot-wide driving lanes*
- Parking loss
- Bike lane may be propped to sidewalk level in constrained locations



*intersections may be designed in future phase with changes to driving lane widths

Chelmsford St Segment 2 Concept 2

- Separated two-directional bike lane on the east side
- 8-foot-wide sidewalks
- 10-foot-wide driving lanes*
- Parking loss
- Bike lane may be propped to sidewalk level as a shared-use path if appropriate



*intersections may be designed in future phase with changes to driving lane widths

Chelmsford St Segment 2 - Concepts comparison



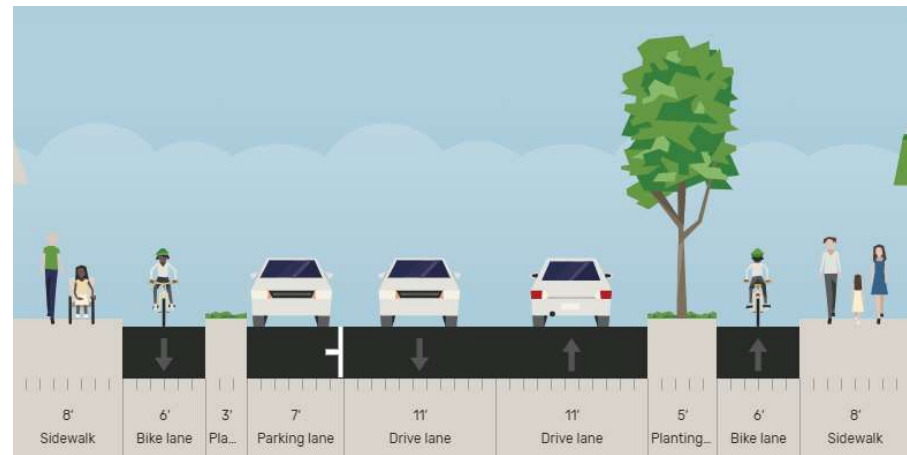
	Existing	Concept 1	Concept 2
Bike Lanes	None	Separated – on both sides	Separated – one side only
Traffic Calming	None	Lane narrowing	Lane narrowing
Sidewalk on each side	5-6 feet	7 feet	8 feet
Parking	Informal spaces on either side	No parking	No parking

Discussion



Concept 1

1. What do you like about Concept 1?
2. What concerns do you have about Concept 1?



Concept 2

1. What do you like about Concept 2?
2. What concerns do you have about Concept 2?

